

## **Response to Written Comments**

### **CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD NORTH COAST REGION**

#### **Proposed Resolution No. R1-2021-0006**

#### **GROUNDWATER BASIN EVALUATION AND PRIORITIZATION RESULTS SUPPORTING SALT AND NUTRIENT MANAGEMENT PLANNING AS REQUIRED BY STATE WATER RESOURCES CONTROL BOARD RECYCLED WATER POLICY**

**April 15, 2021**

#### **Comments Received**

The public comment period for draft Resolution No. R1-2021-0006, *Groundwater Basin Evaluation and Prioritization Results Supporting Salt and Nutrient Management Planning as Required by State Water Resource Control Board Recycled Water Policy* was January 4 to February 3, 2021. The Resolution was accompanied by a draft Staff Report titled “North Coast Hydrologic Region Salt and Nutrient Management Planning Groundwater Basin Evaluation and Prioritization”. Timely comments were received from the following:

- A. Jennifer Burke – City of Santa Rosa
- B. Andy Rodgers – Santa Rosa Plain Groundwater Sustainability Agency
- C. Rob Miller – Del Norte County Farm Bureau
- D. Chris Howard – County of Del Norte – Board of Supervisors
- E. Heidi Kunstal – County of Del Norte Community Development Department
- F. Summer Daugherty – Eel River Valley Groundwater Sustainability Agency
- G. Deborah Edelman – Mendocino County Resource Conservation District
- H. Robert Pennington – Permit Sonoma
- I. Jeff Stackhouse – University of California Cooperative Extension
- J. David Noren – Private Citizen

Copies of timely written comments have been provided to Regional Water Board members and are available for the public upon request.

Regional Water Board staff held tele-conferences and had email exchanges with several of the listed commenters to discuss their comments. Responses to comments contained in this document consider comments made during the tele-conferences and email exchanges.

In this document, comments from the Public are summarized, followed by Regional Water Board staff response. Text added to the Proposed Resolution is identified by

underline and text to be deleted from the Proposed Resolution is identified by ~~strike-through~~ in this document. The term “Draft Resolution” refers to the version of the resolution that was sent out for public comment. The term “Proposed Resolution” refers to the version of the resolution that has been modified in response to comments and is being presented to the North Coast Regional Water Quality Control Board (Regional Water Board) for consideration. Changes to the Staff Report are summarized in the document, but specific changes are not itemized.

### **City of Santa Rosa Comments**

**Santa Rosa Comment 1:** The City of Santa Rosa recommends that the Regional Board take into consideration the quality of recycled water when evaluating and prioritizing basins. We respectfully request that the quality of recycled water be taken into consideration when evaluating the quality of groundwater because it is indeed a factor.

**Response to City of Santa Rosa Comment 1:** The unit volume of recycled water used per unit area of a groundwater basin is a component of one of the seven major factors staff used to evaluate and prioritize groundwater basins. In groundwater basins with discharges of recycled water, its use accounted for, on average, about 5 percent of the total priority points for the groundwater basin. The purpose of groundwater basin evaluations is to prioritize groundwater basins for salt and nutrient management planning based on the overall threat (from many sources) to groundwater from salts and nutrients. The State Water Resources Control Board “Water Quality Control Policy for Recycled Water” (Recycled Water Policy) states that “...irrigation using imported water, diverted water, surface water, groundwater, or recycled water, and indirect potable reuse for groundwater recharge (groundwater recharge) can contribute to increased salt and nutrient loading” and once more states “...the use of water for irrigation may, regardless of its source, affect groundwater quality.” From a mass balance consideration, the use of recycled water for irrigation can cause an increase in salt input to shallow soils and therefore may result in an increase in total dissolved solids in shallow groundwater. Given the purpose of groundwater basin evaluations, guidance from the Recycled Water Policy, and mass balance considerations, staff do not recommend modifying the evaluation process to account for the quality of recycled water. Staff note the importance of recycled water in several North Coast groundwater basins and acknowledge the City of Santa Rosa for its efforts to operate the largest and longest running recycled water program in the region.

The staff report was revised to reflect imported water effects on the mass balance of salts and nutrients and therefore its potential impact on groundwater quality. Regional Water Board staff revised Factor 2-Contribution of Imported water and Recycled water to the basin water supply for the Santa Rosa Plain subbasin from 5 to 4 considering that a significant fraction of the imported water in the Santa Rosa Plain subbasin becomes recycled water produced by the City of Santa Rosa of which about two-thirds is discharged outside the region and the initial evaluation process did not consider this circumstance.

Regional Water Board staff are aware the City of Santa Rosa has performed groundwater monitoring associated with its recycled water program for several decades. Regional Water Board staff recently received from City of Santa Rosa staff, data encompassing groundwater monitoring for the years 2010 through 2020. Regional Water Board staff appended the groundwater subbasin dataset with this recently provided data. New data from GAMA and the City of Santa Rosa, in combination with a modification in the analysis of non-detect data, resulted in a flat nitrate trend as compared to the not statistically significant trend from the initial evaluation. The staff report was revised to note the additional data used in the evaluation and prioritization process. Regional Water Board staff reduced Factor 1-Status and Trends in the Concentration of Salts and Nutrients for the Santa Rosa Plain groundwater subbasin from 6 to 5.

No changes were made to the Proposed Resolution in response to this comment.

### **Santa Rosa Plain Groundwater Sustainability Agency Comments**

**Santa Rosa Plain GSA Comment 1:** The GSA recommends the staff report include within the section on Adaptive Management Pathways and Potential Implementation Options some language that recognizes the need for coordination with the GSA during some of the proposed management actions, such as identification of priority zones, expansion of groundwater monitoring, and re-evaluation of subbasin prioritization. The GSA will be collecting additional information and developing projects and management actions to ensure groundwater sustainability.

**Response to Santa Rosa Plain GSA Comment 1:** Staff considered the recommendation to reference coordination with Groundwater Sustainability Agencies in the staff report section on Adaptive Management Pathways and Potential Implementation Options.

No changes were made to the Proposed Resolution in response to this comment. However, the staff report was revised in consideration of this recommendation.

**Santa Rosa Plain GSA Comment 2:** The quality of imported water delivered through Sonoma Water's Russian River system facilities is generally of much higher quality with respect to salts and nutrients compared with existing groundwater quality: the average concentration of TDS and nitrate in imported Russian River Water is 150 mg/l and 0 mg/l, respectively, and the average concentrations for TDS and nitrate in groundwater in the Santa Rosa Plain Groundwater is 290 mg/l and 1.3 mg/l, respectively (Santa Rosa Plain Subbasin Salt and Nutrient Management Plan, City of Santa Rosa, 2013). The GSA recommends that the Water Board acknowledge these conditions and remove the priority points associated with the imported water deliveries.

**Response to Santa Rosa Plain GSA Comment 2:** The unit volume of imported water used per unit area of a groundwater basin is a component of one of the seven major factors staff used to evaluate and prioritize groundwater basins. In groundwater basins which use imported water, its use accounted for on average about 10 percent of the

total priority points for the groundwater basin. The purpose of basin evaluations is a prioritization for salt and nutrient management planning purposes based on the overall threat (from many sources) to groundwater from salts and nutrients. As discussed in Response to City of Santa Rosa Comment 1, the use of imported water for irrigation can cause an increase in salt input to shallow soils and therefore may result in an increase in total dissolved solids in shallow groundwater. As such, staff do not recommend modifying the evaluation process to account for the quality of imported water.

No changes were made to the Proposed Resolution in response to this comment.

**Del Norte County Farm Bureau, County of Del Norte Board of Supervisors, and County of Del Norte Community Development Department Comments (Del Norte)**

**Del Norte Comment 1:** Each factor used in determining the “high” prioritization assigned to the Smith River Plain needs to be thoroughly vetted by local stakeholders to ensure that the most current and accurate information was considered when assigned points to each factor. Please send us the data you used to establish the preference points for all the categories in the Smith River Plain so we can review.

**Response to Del Norte Comment 1:** Staff engaged with Del Norte commenters to review and discuss datasets for the seven major factors of the evaluation and prioritization. Of the 35 priority points assigned to the Smith River Plain groundwater basin, 16 are based on the California Department of Water Resources (DWR) Sustainable Groundwater Management Act 2019 Basin Prioritization of which the commenter was familiar. In 2018, the County of Del Norte prepared a Basin Assessment for the Smith River Plain groundwater basin and found groundwater use and reliance was significantly less than reported by DWR. In addition to holding a tele-conference with representatives from the County of Del Norte Board of Supervisors and the Del Norte County Farm Bureau to discuss the overall evaluation process and associated datasets, Regional Water Board staff held two tele-conferences with County of Del Norte staff for a detailed review of datasets used in the evaluation. Following the tele-conferences, County of Del Norte staff provide mapping products which Regional Water Board staff used to update areas lacking sewer connections which revealed a higher number of OWTS than the initial mapping. Regional Water Board staff also identified groundwater monitoring data not used in the initial evaluation process and appended the Smith River Plain dataset with this recently provided data.

Regional Water Board staff revised priority points for the Smith River Plain groundwater basin and the Staff Report as follows.

New data from GAMA and older data from Regional Water Board files, in combination with a modification in the analysis of non-detect data, resulted in a not statistically significant trend for nitrate and TDS as compared to increasing trend from the initial evaluation. Factor 1-Status and Trends in the Concentration of Salts and Nutrients was from reduced from 5 to 3.5.

In consideration of lower groundwater use reported in the County of Del Norte 2018 Basin Assessment for the Smith River Plain, Factor 3-Reliance on Groundwater to Supply the Basin or Subbasin was reduced from 11 to 10.5.

Based on an increase in the number of OWTS per the revised mapping of sewerred parcels provided by the County of Del Norte Factor 5-Number and density of on-site wastewater treatment systems was increased from 6 to 8.

No changes were made to the Proposed Resolution in response to this comment.

### **Eel River Valley Groundwater Sustainability Agency Comments**

**Eel River Comment 1:** What is the connection between Groundwater Sustainability Planning and the Regional Water Board groundwater basin evaluation and prioritization? Will a designation of “high priority” for salt and nutrient management planning require a separate plan from a groundwater sustainability plan? What steps is the Regional Water Board taking to reduce redundancy with the Sustainable Groundwater Management Act process?

**Response to Eel River Comment 1:** The Sustainable Groundwater Management Act required the formation of local Groundwater Sustainability Agencies which are responsible for developing and implementing Groundwater Sustainability Plans to achieve groundwater sustainability through management of groundwater extraction and implementation of projects. Groundwater Sustainability Agencies are not responsible for regulating water quality - this is the responsibility of Regional Water Boards and the State Water Resources Control Board. The State Water Board encourages collaborative work among salt and nutrient management planning groups, the agricultural community, the regional water boards, Integrated Regional Water Management groups, and groundwater sustainability agencies formed under the Sustainable Groundwater Management Act to achieve the goals of groundwater sustainability, recycled water use, and water quality protection. The Recycled Water Policy requires Regional Water Boards prioritize groundwater basins for salt and nutrient management planning through an evaluation and prioritization process. The results will be used to prioritize Regional Water Board resources and can be used to inform future actions to protect high quality groundwater and restore impaired groundwater. The groundwater basin evaluation and prioritization process itself is non-regulatory and does not directly impose new requirements on dischargers or landowners.

For priority groundwater basins identified by Regional Water Boards, the State Water Board encourages local water suppliers, wastewater treatment agencies, and recycled water producers, together with local salt and nutrient contributing stakeholders, to continue locally driven and controlled, collaborative processes open to all stakeholders and the regional water board that will result in the development of salt and nutrient management plans for groundwater basins and the management of salts and nutrients on a basin-wide basis. The State Water Board also encourages stakeholders to incorporate the basin evaluation information developed by each regional water board in prioritizing groundwater basins for salt and nutrient management planning. A regional

water board may determine that a groundwater management plan for a basin, subbasin, or other regional planning area is functionally equivalent to a salt and nutrient management plan. For example, a regional water board may find that groundwater sustainability plans developed pursuant to the Sustainable Groundwater Management Act include water quality components that sufficiently address the required components of salt and nutrient management plans listed in the Recycled Water Policy and therefore are functionally equivalent to a salt and nutrient management plan.

The staff report section on Adaptive Management Pathways and Potential Implementation Options has been revised to reference coordination with Groundwater Sustainability Agencies as noted in Response to Santa Rosa Plain GSA Comment 1.

No changes were made to the Proposed Resolution in response to this comment.

### **Mendocino County Resource Conservation District Comments**

**MCRCD Comment 1:** Does the groundwater basin evaluation and prioritization process require development and implementation of a groundwater monitoring program by local agencies or landowners? Will the Regional Water Board perform groundwater monitoring? What is the timeline for implementation?

**Response to MCRCD Comment 1:** The Recycled Water Policy requires Regional Water Boards to prioritize groundwater basins for salt and nutrient management planning through a basin evaluation and prioritization process. The results will be used to prioritize Regional Water Board resources and can be used to inform future actions to protect high quality groundwater and restore impaired groundwater. The basin evaluation and prioritization process itself is non-regulatory and does not directly impose new requirements on dischargers or landowners, such as groundwater monitoring. The Regional Water Board does not have an ongoing groundwater monitoring program, but staff periodically support the collection of groundwater data to inform the development of waste discharge requirements and groundwater management planning documents. Groundwater monitoring is commonly required as part of the monitoring and reporting programs attached to Waste Discharge Requirements for the discharge of waste to land, e.g. wineries, municipal wastewater, dairies, and landfills, etc. As noted in Response to David Noren Comment 2, staff are currently working to identify funding opportunities to sample and analyze groundwater from private domestic water supply wells in areas served by OWTS.

The staff report section on Adaptive Management Pathways and Potential Implementation Options presents a recommended adaptive management frequency and the section has been revised to reference coordination with Groundwater Sustainability Agencies.

No changes were made to the Proposed Resolution in response to this comment.

## Permit Sonoma Comments

**Permit Sonoma Comment 1:** The Santa Rosa Plain subbasin seems to be listed as “critical” because it has the highest number of priority points, not because of existing degradation or any significant trend towards degradation. Factor 1-Status and Trends in the Concentration of Salts and Nutrients is the only component that evaluates observed water quality conditions. All other factors are related to the importance of the basin as a resource and the relative potential for degradation to occur. Is supporting groundwater data available to the public?

**Response to Permit Sonoma Comment 1:** The Recycled Water Policy requires that Regional Water Boards prioritize groundwater basins for salt and nutrient management planning through an evaluation and prioritization process. The results will be used to prioritize Regional Water Board resources and can be used to inform future actions to protect high quality groundwater and restore impaired groundwater. The evaluation and prioritization process itself is non-regulatory and does not directly impose new requirements on dischargers or landowners, including groundwater monitoring.

The Santa Rosa Plain subbasin is listed as a Priority 1 groundwater basin for salt and nutrient management planning because it has the highest number of priority points. The Recycled Water Policy specified seven evaluation factors to be used in evaluating and prioritizing groundwater basins for salt and nutrient management planning: 1) Magnitude of and trends in the concentrations of salts and nutrients in groundwater; 2) Contribution of imported water and recycled water to the basin water supply; 3) Reliance on groundwater to supply the basin or subbasin; 4) Population; 5) Number and density of on-site wastewater treatment systems; 6) Other sources of salts and nutrients, including irrigated agriculture and confined animal facilities; and 7) Hydrogeologic factors, such as regional aquitards, depth to water, and other basin- or subbasin-specific factors. Most groundwater data used in Factor 1 was obtained from the publicly available State of California Groundwater Ambient Monitoring and Assessment (GAMA) database. Groundwater data from the Regional Water Board dairy program supplemented the GAMA data. Regional Water Board staff are working to provide a data package for upload to the GAMA Groundwater Information System website for all salt and nutrient data used in the basin evaluation process obtained from sources other than the GAMA program including the North Coast Dairy permit data and City of Santa Rosa Recycled Water data. Once the data package is uploaded to the GAMA Geographic Information System website, staff will notify subscribers to the North Coast Regional Water Board Lyris email list for Groundwater Protection. Please sign up to be notified at the following website:

[https://www.waterboards.ca.gov/resources/email\\_subscriptions/reg1\\_subscribe.html](https://www.waterboards.ca.gov/resources/email_subscriptions/reg1_subscribe.html)

As discussed in Response to City of Santa Rosa Comment 1, new data from GAMA and the City of Santa Rosa, in combination with a modification in the analysis of non-detect data, resulted in a flat nitrate trend as compared to the not statistically significant trend from the initial evaluation. The staff report was revised to note the additional data used in the evaluation and prioritization process. Regional Water Board staff reduced Factor

1-Status and Trends in the Concentration of Salts and Nutrients for the Santa Rosa Plain groundwater subbasin from 6 to 5.

No changes were made to the Proposed Resolution in response to this comment.

### **University of California Cooperative Extension Comments**

**UCCE Comment 1:** Certain figures in the Staff Report may benefit from simplification and clarification.

**Response to UCCE Comment 1:** Staff appreciate the comment and have modified the figures to remove unnecessary information and improve contrast between data points and the background map.

### **David Noren Comments**

**General Response to David Noren Comments:** Staff appreciate the background and setting provided by the commenter which give context to his comments.

**David Noren Comment 1:** The North Coast Groundwater Protection Strategy must be grounded in the Antidegradation Policy.

**Response to David Noren Comment 1:** Staff appreciate this comment and agree that the region's Groundwater Protection Strategy must be consistent with the Antidegradation Policy. As stated in previous responses, the results of this groundwater basins evaluation and prioritization process will be used to prioritize Regional Water Board resources and to inform future actions to protect high quality groundwater and restore impaired groundwater, and will be done so in accordance with the Antidegradation Policy.

**David Noren Comment 2:** The other issue is septic tanks and leach fields which are widespread throughout the Region and represent a great unknown as far as cumulative impacts (to water quality).

**Response to David Noren Comment 2:** The groundwater basin evaluation and prioritization process includes identifying areas of high OWTS density. The State Water Board Water Quality Control Policy for Siting, Design, Operation and Maintenance of Onsite Wastewater Treatment Systems (OWTS Policy) requires each Local Agency Management Plan to include a Water Quality Assessment Plan. A Water Quality Assessment Plan is used to determine the general operation status of OWTS and to evaluate the impact of OWTS discharges and assess the extent to which groundwater and local surface water quality may be adversely impacted. Pursuant to the OWTS Policy, the focus of a Water Quality Assessment Plan is areas with 12 different characteristics including: 1) degree of vulnerability to pollution from OWTS due to hydrogeological conditions; 2) high quality waters or other environmental conditions requiring enhanced protection from the effects of OWTS; and 3) OWTS is located within an area of high OWTS density. A Water Quality Assessment Plan includes monitoring

and analysis of water quality data, review of complaints, variances, failures, and any information resulting from inspections. A Water Quality Assessment Plan may use existing water quality data from other monitoring programs and/or establish the terms, conditions, and timing for monitoring done by the local agency. At a minimum a Water Quality Assessment Plan includes monitoring data for nitrates and pathogens and may include data for other constituents which are needed to adequately characterize the impacts of OWTS on water quality.

Regional Water Board staff are working with the Division of Financial Assistance to identify potential funding opportunities through the Safe and Affordable Drinking Water Act for sampling and analysis of groundwater from private domestic water supply wells in locations serviced by OWTS.

**David Noren Comment 3:** Develop a plan to address data gaps.

**Response to David Noren Comment 3:** Staff appreciate the comment and note the Staff Report provides a discussion on potential adaptive management pathways and implementation options. Staff have identified four (not mutually exclusive) components of an implementation approach to addressing the results of this groundwater basin prioritization: 1) continued technical analysis; 2) implementation of existing regulatory tools; 3) stewardship actions; and 4) possible amendments to the Basin Plan. The continued technical analysis component incorporates the need to recurrently evaluate groundwater basins and expand the collection of groundwater monitoring in priority basins.

**David Noren Comment 4:** I think it would be also beneficial to discuss Water Quality Objectives. Several years ago, the Board and staff went through a process to revise Tables 3.1 and removed Table 3.2 from the Basin Plan. As you are aware, there is a great universe of Water Quality Objectives out in the wide world and the Marshack compilation is full of all kinds of numbers that can be applied. The translation policy is an important part of how to apply these objectives. I think it would be good to link the process of evaluating water quality to the current process of setting regulatory standards. In my opinion this should be established in the Resolution as it gives a target of where potentially the process goes and allows for goals to be set from the beginning and may provide insight of where to go with the implementation of any Policy that comes out of the Resolution.

**Response to David Noren Comment 4:** Staff appreciate the comment and agree with the need to have a method to link water quality objectives to waste discharge requirements. Developing the full complement of Groundwater Protection Strategy implementation approaches is a dynamic process which will include further staff analysis and recommendations, public input and Board hearings. The Proposed Resolution directs staff to develop a Policy Statement for Groundwater Protection which outlines a range of strategies to protect high groundwater quality and improve degraded groundwater quality within the region and to present the Policy Statement for Board consideration within the shortest time practicable. This forthcoming Policy Statement,

which will be subject to its own public review process, could include a methodology to link water quality objectives to waste discharge requirements.

Further, it is relevant to note that in 2015 the Regional Water Board created a groundwater specialist position which includes duties to support all Regional Water Board programs in evaluating groundwater water quality in order to establish appropriate Waste Discharge Requirements and/or other regulatory requirements aimed at maintaining high groundwater quality and preventing further degradation of groundwater quality.

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